



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/705,489	11/11/2003	Albrecht Weiss	5005.1065	5102
7278	7590	12/10/2007	EXAMINER	
DARBY & DARBY P.C. P.O. BOX 770 Church Street Station New York, NY 10008-0770			PRITCHETT, JOSHUA L	
			ART UNIT	PAPER NUMBER
			2872	
			MAIL DATE	DELIVERY MODE
			12/10/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/705,489

Applicant(s)

WEISS, ALBRECHT

Examiner

Joshua L. Pritchett

Art Unit

2872

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 November 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-5 and 7-31 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 19-27 is/are allowed.
- 6) ☒ Claim(s) 1-5, 7-18 and 28-31 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 11 November 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. _____.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

This action is in response to Amendment filed November 26, 2007. Claim 1 has been amended and claim 6 has been cancelled as requested by the applicant.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-5, 7-11, 13-18 and 28-31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Leiter (US 5,022,744) in view of Stankewitz (US 4,163,150) and Kerr (US 2004/0156016).

Regarding claim 1, Leiter teaches a microscope comprising a light source (2) including a control device configured to control an intensity of light emitted by the light source (col. 4 lines 1-3); an illumination optical system having a numerical aperture and being configured to illuminate a specimen (part of microscope (1); Fig. 1); an aperture device (25) disposed in an illumination beam path and configured to modify the numerical aperture (col. 4 lines 1-3); a spectral correction device (4) disposed in the illumination beam path (Fig. 1) and configured to

correct a change in a spectral intensity distribution of the light emitted by the light source so that a spectral intensity distribution of light directed onto the specimen remains substantially unchanged (col. 3 lines 41-64); a control unit (23) configured to concurrently control the control device (25) and the spectral correction device (8) so that, upon a change in the numerical aperture, both a light flux through the illuminating optical system and a spectral intensity distribution of light directed onto the specimen remain substantially unchanged (col. 3 line 41 – col. 4 line 6). Leiter lacks reference to positioning the aperture device so as to change a resolution and contrast of the microscope. Stankewitz teaches a diaphragm (8) located adjacent a fold flat mirror (6) that is capable of adjusting the aperture of the microscope (col. 5 lines 55-61). Kerr teaches controlling the light source by modifying the power delivered to the light source (para. 0088). It would have been obvious to one of ordinary skill in the art at the time the invention was made to have the Leiter invention include the modification of power to the light source as taught by Kerr for the purpose of more precise control over the intensity of the light that incidents the specimen. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have the Leiter diaphragm located as taught by Stankewitz for the purpose of controlling not only the intensity of the light but also the aperture of the microscope to increase the versatility of the microscope system.

Regarding claim 2, Leiter teaches the control device is configured to change the spectral intensity distribution of the light emitted by the light source (col. 3 lines 41-64).

Regarding claims 3 and 20, Leiter teaches a light sensitive detector (19 and 20) in the illumination beam path (Fig. 1) and configured to detect at least a portion of the light flux through the illuminating optical system and generate, as a function of the detected light flux, a

signal that is usable for open-loop or closed-loop control of at least one of the light source and/or of the spectral correction device (col. 3 lines 41-64).

Regarding claim 4, Leiter teaches the aperture device includes an aperture having a changeable diameter (col. 4 lines 1-3).

Regarding claim 5, Leiter teaches the diameter of the aperture is changeable by a motor (26).

Regarding claim 7, Leiter teaches the spectral correction device includes a filter (7 and 8) disposable in the illumination beam path, the filter having a plurality of working positions, a filter characteristic of the filter being a function of the respective working positions (col. 3 lines 41-64).

Regarding claims 8-10, Leiter teaches the invention as claimed but lacks reference to the specific type of filter used. It is extremely well known in the art to use either an absorption filter, an interference filter or a reflection filter to filter out light of an unwanted wavelength. Official Notice is taken. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have the Leiter invention include of the above mention types of filters as is known in the art for the purpose of achieving precise and well known results.

Regarding claim 11, Leiter disclose a spectral transmittance of the filter changes at least one of continuously and discontinuously (col. 3 lines 41-64). The spectral transmittance of the filter changes discontinuously as it is moved with respect to the beam path.

Regarding claim 13, Leiter teaches the spectral correction device is capable of changing a spectral intensity distribution of the light from the light source by a motion of the spectral correction device relative to the illumination beam path (col. 3 lines 41-64).

Regarding claims 14, Leiter teaches a motor (9) configured to move the spectral correction device.

Regarding claim 15, Leiter teaches the spectral correction device includes a linearly displaceable filter (col. 2 lines 36-38).

Regarding claim 16, Leiter disclose respective intensities of the light emitted by the light source and respective working positions of the filter are predeterminable and storable as a function of respective settings of the aperture device (col. 3 lines 32-40).

Regarding claim 17, Leiter teaches the spectral correction device is configured to influence the light intensity of a red spectral region (col. 3 lines 53-56).

Regarding claim 18, Leiter teaches a control computer (23) configured to control the spectral correction device (Figs. 1 and 3; col. 3 lines 32-40).

Regarding claim 28, Leiter teaches the invention as claimed but lacks reference to modifying the power to the light source. Kerr teaches controlling the light source by modifying the power delivered to the light source (para. 0088). It would have been obvious to one of ordinary skill in the art at the time the invention was made to have the Leiter invention include the modification of power to the light source as taught by Kerr for the purpose of more precise control over the intensity of the light that incidents the specimen.

Regarding claim 29, Leiter teaches a light sensitive detector (19 and 20) in the illumination beam path (Fig. 1) and configured to detect at least a portion of the light flux through the illuminating optical system and generate, as a function of the detected light flux, a signal that is usable for open-loop or closed-loop control of at least one of the light source and/or of the spectral correction device (col. 3 lines 41-64).

Regarding claim 30, Leiter teaches the spectral correction device includes a filter (7 and 8) disposable in the illumination beam path, the filter having a plurality of working positions, a filter characteristic of the filter being a function of the respective working positions (col. 3 lines 41-64).

Regarding claim 31, Leiter disclose respective intensities of the light emitted by the light source and respective working positions of the filter are predeterminable and storable as a function of respective settings of the aperture device (col. 3 lines 32-40).

Response to Arguments

Applicant's arguments, see Amendment, filed November 26, 2007, with respect to claim 19 have been fully considered and are persuasive. The rejection of claim 19 has been withdrawn. Applicant argued the prior art fails to teach the claimed manner of control. The examiner agrees that the prior art teaches the controlling a wavelength filter based on the control of the light source and instead teaches controlling the light source based on the wavelength filter. The limitations of claim 19 are written as a method claim and therefore overcome the prior art of record.

Applicant's arguments filed November 26, 2007 have been fully considered but they are not persuasive.

Applicant argues Leiter does not teach a light source whose power is controlled. The Kerr reference has been added to claim 1 to teach this limitation.

Applicant argues Leiter fails to suggest controlling the spectral correction so as to maintain the spectral intensity upon such a change in the light source intensity. An apparatus claim must overcome the prior art with structural limitations (MPEP 2114). An apparatus claim describes what a device is not what a device does. Both the diaphragm and the spectral filter of Leiter are connected to a controller therefore the system as taught in the rejection above would be capable of performing the claimed control and therefore meets all the structural limitations present in the claim language.

Applicant argues Kerr teaches modifying electrical power to a light source is an alternative to varying a diaphragm and therefore is not properly combined with the Leiter reference. If the location of the diaphragm is changed to the location taught by Stankewitz the light source is no longer controlled by the diaphragm. Additionally if a second diaphragm is added as the location taught by Stankewitz the use of a diaphragm and power control at the light source would provide redundant control of the light source intensity and provide more precise control of the intensity of light exiting the light source.

Allowable Subject Matter

Claims 19-27 are allowed.

The following is an examiner's statement of reasons for allowance:

Regarding claim 19, the prior art of record fails to teach or suggest the claimed control of the spectral intensity by controlling the spectral filter based on the intensity of the light source.

The remaining claims are dependent on claim 19 and are allowed for the same reasons.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Application/Control Number:
10/705,489
Art Unit: 2872

Page 9

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joshua L. Pritchett whose telephone number is 571-272-2318. The examiner can normally be reached on Monday - Friday 7:00 - 3:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephone B. Allen can be reached on 571-272-2434. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Joshua L Pritchett
Primary Examiner
Art Unit 2872